UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,932	03/06/2001	Kok Gi Wu	74451.P127D1	5639

7590 04/26/2006

Michael J. Mallie
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Seventh Floor
12400 Wilshire Boulevard
Los Angeles, CA 90025-1026

EXAMINER
CHEN, WENPENG

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/800,932	GORMISH ET AL.	
	Examiner	Art Unit	
	Wenpeng Chen	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/27/2005 has been entered.

2. DECLARATION OF PRIOR INVENTION IN UNITED STATES TO OERRCOME CITED PATENT OR PUBLICAHON (37 C.F.R. 1.131) filed by Michael J. Gormish on 6/27/2005 has been considered. The declaration is submitted to claim the completion of invention at least by August 30, 2000.

-- The declaration is thus can be used to swear behind Christopoulos et al. ("The JPEG2000 STILL IMAGE CODING SYSTEM: AN OVERVIEW," Charilaos Christopoulos, et al., IEEE Transactions on Consumer Electronics, vol. 46, No. 4, November 2000, pages 1103-1127, hereafter referred as Christopoulos paper.)

-- However, the declaration cannot swear behind the Christopoulos patent publication because the effective filing date of Christopoulos et al. (US patent application publication 2001/0047517, hereafter referred as Christopoulos patent publication) is 2/10/2000 that is the filing date of its corresponding provisional application.

3. In the declaration pursuant to 37 C.F.R. 1.132 filed on 6/27/2005, Gormish declared that he is the sole inventor of all the subject matter in the article related to performing progressive order conversion. Therefore, the Marcellin et al. reference ("An Overview of JPEG-2000," Michael W. Marcellin, et al., Proceedings of Data Compression Conference, DCC 2000, 28-30 March 2000, pages 523-541) is disqualified as 35 U.S.C. 102(a) reference.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christopoulos et al. (US patent application publication 2001/0047517 cited previously, hereafter referred as Christopoulos patent publication) in view of ISO/IEC JTC 1/SC 29/WG 1 N1646 ("JPEG 2000 Image coding system," ISO/IEC JTC 1/SC 29/WG 1. JPEG 2000, 16 March 2000, hereafter referred as N1646.)

Christopoulos patent publication teaches a system comprising:

-- a memory storing a compressed image as a codestream in a first format; (paragraphs 0035-0036; Fig. 2 shows codestreams with various formats specified by hints.)

-- a format conversion parser to convert the codestream from the first format to a second format different than the first format by reading the hints of the codestream to determine a

current type of format, updating the hints to specify a target type of format and outputting packets of the codestream specified by the hints; (paragraphs 0035-0038)

-- wherein the codestream is a JPEG 2000 codestream. (paragraphs 0042-0043)

Furthermore, Christopoulos patent publication teaches a transcoder between a server and a client. In the transcoding arrangement, a client can also serve as another server. (sections 0020, 0035) The transcoding is performed among two or more network elements. The server can be a web server. (section 0012) Christopoulos patent publication teaches the transcoder:

-- wherein the server, in response to receiving a request, performs the conversion and sends the codestream in the second format; (sections 0036-0038)

-- wherein a memory is part of a server that serves the image in response to requests wherein the request is received in response to an activation by a client on a first image having the first format and wherein in response to the request, a second image having the second format is presented to the client. (sections 0036-0038)

Although Christopoulos patent publication teaches that the hints are resolution and region of interest (ROI) (paragraphs 0039-0041) that are also used in JPEG2000 for parsing datastream, Christopoulos patent publication does not explicitly teaches that the format is related to progressed order specified in JPEG2000.

N1646 teaches a JPEG2000 method and system (sections 6-8 in pages 8-11) comprising:

-- a memory storing a compressed image as a codestream in a first progression order; (Section 6 teaches storage of codestream. The system inherently has a memory. Section B.11, pages 67-70 teaches various progression order associated with resolution, ROI and others.)

-- a progression order for specifying conversion of the codestream from the first progression order to a second progression order different than the first progression order by referring to one or more markers of the codestream to determine a current type of progression, updating the one or more markers to specify a target type of progression and rewriting packets of the codestream in an order conforming to the second progression order indicated by the updated one or more markers; (especially section B11.1, the COD markers)

-- wherein the conversion steps:

- determines where packets exist in the codestream based on at least one marker; (sections B.11.1 in pages 68-69; The (l, r, I, k) are markers.)

- creates a structure specifying components in each packet; (Sections B.11.1 in pages 68-69 shows five structures.)

- orders packets in the codestream using the structure according to a specified; (sections B.11.1 in pages 68-69)

-- wherein the codestream is a JPEG 2000 codestream; (title in page 1)

-- wherein the progression order is performed using an array of packet structures, each of the packet structures corresponding to each layer of each tile in the codestream, and wherein the ordering is performed based on at least one of layer, resolution, component, and precinct progression information of the packet structures without having to decode and re-encode the codestream; (sections B.11.1 in pages 68-69)

-- wherein the marker indicates a starting point and an ending point of data associated with the respective packet; (pages 15, 16, 17, 20; section A. 8.1, page 49; section 8.2, page 50)

-- wherein the marker further indicates how the data should be handled during the progression order conversion; (page 40, A.6.6)

-- wherein the marker indicates at least one of whether the data is to be deleted, truncated, and one or more additional operations that are to be performed on the data; (page 40 indicates marker values for defining end of progression for layer, resolution, and component. COC in pages 33-34 defines what to include and what not to include in the data stream. This selection is a kind of truncation and deletion.)

-- wherein the handling information is based on rate distortion information provided via one of a PLT/PPM and a PPT/PPM marker sets; (pages 45-48)

-- wherein a progression order comprises a layer-resolution-component-position progression of JPEG 2000; (sections B.11.1 in pages 68-69)

-- wherein a progression order progression orders is one of the following groups of JPEG 2000 progression order: resolution-layer-component-position progression; resolution-position-component-layer progression; component-position-resolution-layer progression; and position-component-resolution-layer progression. (sections B.11.1 in pages 68-69)

It is desirable to have a system to be compatible with an industrial standard to broaden its user base. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to combine the teachings of Christopoulos patent publication and N1646 to provide multimedia data through web servers connecting to devices of various capabilities using standard specified in N1646, especially using Christopoulos' parser and N1646's progression order to convert from one format to another format, because the combination broadens user base of Christopoulos' system.

The combination thus teaches:

-- a memory storing a compressed image as a codestream in a first progression order;

-- a progression order conversion parser to convert the codestream from the first progression order to a second progression order different than the first progression order by reading one or more markers of the codestream to determine a current type of progression. updating the one or more markers to specify a target type of progression and outputting packets of the codestream in an order conforming to the second progression order indicated by the updated one or more markers;

-- wherein the parser:

- determines where packets exist in the codestream based on at least one marker;

- creates a structure specifying components in each packet;

- reorders packets in the codestream using the structure to map the first progression order to the second progression order;

-- wherein the codestream is a JPEG 2000 codestream;

-- wherein the progression order conversion is performed using an array of packet structures, each of the packet structures corresponding to each layer of each tile in the codestream, and wherein the conversion is performed based on at least one of layer, resolution, component, and precinct progression information of the packet structures without having to decode and re-encode the codestream.

Furthermore in the combination, when data are transferred from a first network element to a second network element through an intermediate network element, the progression order can be changed from a first order of the first network element to an intermediate order of the

intermediate network element and then to the second order of the second network element. The combination thus further teaches the recited features:

-- wherein the parser, in response to receiving a request, performs the conversion and sends the codestream in the second progression order;

-- wherein the memory is part of a server that serves the image in response to requests wherein the request is received in response to an activation by a client on a first image having the first progression order. and wherein in response to the request, a second image having the second progression order is presented to the client;

-- wherein the request includes a command specifying a target progression order as the second progression order;

-- wherein the intermediate progression order is a layer progression order and the second progression order is a target progression order other than the layer progression order.

The above passages also teach the corresponding methods of Claims 10-18 and 28-34.

The above passages also teach the corresponding apparatus of Claim 20.

Christopoulos patent publication teaches a code conversion system having a trnascoder with the converting algorithm. (Fig. 1; The transcoder reformats multimedia data using hints. Inherently, the transcoder has a computer-readable memory carrying conversion algorithm. (sections 0037) Without a stored algorithm, the transcoder cannot perform the function of data conversion. Therefore, the combination also teaches the article of Claim 19.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 571-272-7431. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 571-272-7437. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications. TC 2600's customer service number is 571-272-2600.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Wenpeng Chen
Primary Examiner
Art Unit 2624

regenerated on
April 24, 2006